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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

LAURI VALJAKKA,

Plaintiff,

v.

NETFLIX, INC.,

Defendant.

Case No. 4:22-cv-01490-JST

PLAINTIFF LAURI VALJAKKA'S RESPONSE TO DEFENDANT NETFLIX, INC.'S MOTION FOR JUDGMENT ON THE PLEADINGS

Date: March 9, 2023
Time: 2:00 p.m.
Ctrm: 6, 9th Floor
Judge: Honorable Jon S. Tigar

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Plaintiff Lauri Valjakka ("Plaintiff" or "Valjakka") respectfully files this Response to Defendant Netflix, Inc.'s ("Netflix" or "Defendant") Motion for Judgment on the Pleadings ("Motion") showing the Court that Defendant's Motion should be denied.

I. INTRODUCTION

Defendant's Motion contends that the claims of United States Patent Nos.: 10,726,102 and 8,495,167 ("Patents-in-Suit") are ineligible under 35 USC §101. However, Defendant Netflix's analysis under 35 USC §101 is incomplete, overly simplistic and yields incorrect conclusions for each of the Patents-in-Suit. Under a proper analysis, all claims of each patent are eligible and Defendant's Motion should be denied.

II. BACKGROUND

A. The '102 Patent

On July 28, 2020, United States Patent No. 10,726,102[1] ("the '102 Patent"), entitled "Method Of and System For Providing Access to Access Restricted Content to a User" was duly and legally issued by the United States Patent and Trademark Office ("USPTO"). The '102 Patent claims patent-eligible subject matter and is valid and enforceable.

The '102 Patent is directed to providing access to restricted content to a user. *Id.* at 1:22-24. Many publishers, copyright holders, and individuals wish to control the use of digital content and devices after sale, and there are numerous ways of controlling and protecting such digital content such as digital rights management (DRM) methods. *Id.* at 15-12. However, as discussed by the '102 Patent, the digital rights management methods known at the time of the invention are in general not effective. *Id.* at 20-21. Rather, the '102 Patent provides an effective and improved

[1] Doc. No. 74-1, pages 15-31 (U.S. Patent No. 10,726,102).

solution for access to restricted content to a user wherein the restricted content is usable without being in an unprotected state. This improvement was not known at the time of the invention.

Claim 10 of the '102 Patent recites:

> A method, comprising:
> obtaining an access restricted content from at least one of a content database and a content providing server;
> obtaining a first digital rights management key from a content database, wherein the obtaining is based at least in part on a query, the query comprising the content identifier and an identifier associated with the user;
> deriving, using the first digital rights management key, from the access restricted content a fingerprint of the access restricted content wherein the obtaining is based at least in part on the first digital rights management key,
> causing the content providing server to validate the fingerprint, and, if the validation is successful, accessing the access restricted content and
> information describing encryption properties of the access restricted content, and
> deriving, using the digital rights management header of the access restricted content, from the access restricted content a second and third digital rights management key,
> wherein the second and third digital rights management keys are applied to retrieve the payload of the access restricted content and wherein at least one of the second or third digital rights management key is used to encrypt the other key of the second or third digital rights management key,
> wherein the content is usable without being in an unprotected state.[2]

The specification describes that the restriction to access content is put in place by a content provider, for example a publisher or copyright holder, or any person that owns rights to the content and wishes to restrict access to it. *Id.* at 5:41-45. The restricted content is digital content in a form of digital media, for example text, audio, video, graphics, animations, or images. *Id.* at 5:48-51. A user that wishes to access the content could do so through a communication device such as tablet devices, set-top boxes, video game consoles, smart phone, etc. *Id.* at 5:19-30.

A user can place a content request message over the Internet or a network to a content

[2] Doc. No. 74-1, pages 15-31 (the '102 Patent) at 14:1-28.

access authorization server. The content message includes a unique identifier associated with the user and content identifier. *Id.* at 6:55-59. A validation module retrieves a first digital rights management key (Key #1) and a header associated with the user identifier in response to a determination that the received content identifier and the user identifier matches with at least one combination of the stored user identifiers and content identifiers. Key #1 is retrieved from the media storage device or a separate server. If the content identifier and Key #1 matches with any combination of content identifier and Key #1 stored in the media storage device, the validation module provides the access-restricted content to the user. With Key#1, the user can only access the content, meaning the user is not able to use the content. *Id.* at 7:16-37.

If the user wishes to use the restricted content, the validation module analyses the header for Key #1 and prepares a second digital rights management key (Key #2). Key #2's preparation may include performing a cryptographic operation on at least part of the restricted content, which operation may employ Key #1, and decrypting Key #2 by using Key #1. The decryption module may decode the media content using Key #1 and Key #2, allowing the user to use the media content. *Id.* at 8:7-20.

The validation may further use Key #1 in order to prepare a third digital rights management key (Key #3). *Id.* at 8:21-22. The decryption module may use Key #1, Key #2, and Key #3 to decode the media content thereby allowing the user the use of the content such as viewing, copying, or listening to the content. *Id.* at 8:89-10; 8: 29-31. Key #3 may be obtained from the access restricted content using Key #1 in a similar way as obtaining Key #2. *Id.* at 8:31-34.

When a client/user transmits a message to the content server with the content identifier and a client identifier, the content server with a content database may transmit a query to the

content database, the query including both the client and content identifiers. *Id.* at 10: 10-17. The content database then responds to the content server with a message having a validation result that includes Key #1 and transmits Key #1 to the client/user. *Id.* at 10:18-29. With the Key #1, the client/user may access content using Key #1 but only a fingerprint of the content, not the use of the content. The client/user transmits the fingerprint to the content server that queries the database for the content fingerprint. If the fingerprints sent and received match, the content server provides a positive validation. *Id.* at 31-47.

After validation, the client/user accesses the content to obtain a DRM header. Using the header, the client/user is enabled to prepare Key #2 and Key #3 in order to apply these second and third keys to retrieve payload of the content and use the content. *Id.* at 10:48-56. After using Key #2 and Key #3 to retrieve the payload, the client/user is able to use the content without the content being left in an unprotected state. *Id.* at 12:4-6.

The claim feature of the content being usable without being in an unprotected state together with the other features of claim 10, was also acknowledged by the U.S. Patent and Trademark Office (USPTO) as novel in view of the known art at the time of the invention.[3]

Defendant's Motion argues that claim 10 of the '102 Patent is directed to ineligible subject matter under 35 U.S.C. § 101. However, Defendant's Motion should be denied at least because claim 10 is patent eligible at least because it provides for a technical improvement in the technical area of restricted digital content and digital rights.

[3] See Exhibit A – Notice of Allowability. ('102 Patent claim 10 corresponding to Application serial no. 14/591,952 claim 6 was deemed novel after the feature of "the content is usable without being in an unprotected state," was added to the claim.)

B. The ’167 Patent

On July 23, 2013, United States Patent No. 8,495,167[4] (“the ‘167 Patent”), entitled “Data Communications Networks, Systems, Methods and Apparatus” was duly and legally issued by the United States Patent and Trademark Office (“USPTO”). The ‘167 Patent claims patent-eligible subject matter and is valid and enforceable. Plaintiff Valjakka is the exclusive owner of the ‘167 Patent.

The '167 Patent is directed to providing improved data communications networks, methods of operating data communications networks, network servers, network terminals and computer programs. *Id*. at 1:24-27. In other known client/server data networks at the time of the '167 Patent invention, a main server serves all terminals via a single server socket. However, the '167 Patent states that prior network systems and methods were not effective or efficient. These prior known networks resulted in extreme spikes in the network load, especially when data is required to be transferred to a large number of clients simultaneously, causing delays in data transmission. *Id*. at 1:12-17. However, claim 1 of the '167 Patent allows for a beneficial reduction in extreme spikes in network loads that caused delays in data transmission, thereby providing the end user who watches or listens to a content file a better experience without network delay and reduces congestion and bandwidth needs on the network, saving costs. Because claim 1 of the '167 Patent provides a technological improvement (no or reduced network delay and reduced congestion and bandwidth needs on a network) in the technical field of communication networks, it is not merely abstract and is patent eligible.[5]

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[4] Doc. No. 74-1, pages 2-13 (U.S. Patent No. 8,495,167).

[5]Numerous courts have found that claims directed to a technological solution to a technological problem that is an improvement over the prior art is patent eligible. For example, in *Uniloc*, the

Claim 1 of the '167 Patent recites:

A data communication network comprising:

a plurality of terminals; and

a main server adapted to manage selective retrieval of data from a first server by at least one target terminal selected from said plurality of terminals, said main server being distinct from said first server, and

a network information database containing terminal performance information,

wherein at least two of said terminals are adapted to act as relay servers for serving data retrieved from said first server to at least one target terminal; and

wherein the main server is adapted to send transport requests direct to at least one first target terminal on the basis of said terminal performance information, and

wherein the main server is further adapted to monitor response times of terminals in the network and in which terminals are selected to act as relay servers for a particular data transfers on the basis of their relative response times, and the first target terminal is adapted to act as relay server; and

wherein each such transport request includes details of data to be retrieved, the address of the first server from which the data is to be requested by the first target terminal, the addresses of at least one second target terminal to which the data from the first server to be relayed by the first target terminal and an indication of a relative performance of a further target terminal based on the terminal performance information stored in the network information database; and

wherein terminals adapted to act as relay servers are adapted to modify transport requests received from the main server or from other relay servers and to transmit the modified transport request to selected target terminals from a set of target terminals identified in the transport request, wherein the modified transport request further includes addresses of further target terminals for which the recipient of the modified transport request is to act as relay server; and

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court found a claim to a "primary station for use in a communication station" to be patent eligible because it was an improvement to computer functionality in the reduction of latency experienced by parked secondary stations in communication systems. *Uniloc USA, Inc. v. LG Electronics USA, Inc.*, 957 F.3d 1303 (9th Cir. 2020). The majority in *Amdocs* found that the claims include an inventive concept in the ordered combination of claim steps, finding that the "claim recites a technological solution to a technological problem specific to computer networks — an unconventional solution that was an improvement over the prior art. *Amdocs (Israel) Ltd. v. Openet Telecom, Inc*., 841 F.3d 1288 (Fed. Cir. 2016). According to *Enfish*, if the focus of the claim is on a technological improvement (to the computer or to another technology), the claim is patent-eligible subject matter and there is no need to evaluate step two of the *Alice* test. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016). In *McRo v. Bandai*, claims directed to using a set of rules to set parameters for a digital animation software process was directed to a technological improvement, and not directed to an abstract idea. *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016).

> wherein data to be retrieved by said target terminals are divided into a series of packets for transmission to said target terminals and each of said terminals is adapted to communicate directly with said main server to acknowledge receipt of the last packet of a series routed thereto.[6]

The invention is to content management networks ("CMs"). Data storage for the network includes a data storage system 10 that includes a media storage system for data that is defined as "media" or "content." The data that is to be distributed is referred to as "content" that includes any type of data of interest to end users, such as text, graphics, video, audio, executable code, etc. *Id*. at 1:53-63. The specification is specific that "content" means "files or parts of files or equivalents thereof that are stored on a server, downloaded from the server by a client and stored by the client for subsequent use. This is distinct from digital broadcast media, in which a data stream is transmitted by a broadcast server and is temporarily buffered by clients, and in some cases, intervening relay units. *Id*.at 1:65-2:3.

Transactions between the media storage system 18 and two or more terminals 14, 16 are controlled by the main server. All data downloads are managed by the main server. Initially, content is retrieved from the storage system by the main server and forwarded on to the terminal by the main server. *Id*. at 14-20. Optionally, the main server does not itself retrieve and forward content, but manages the retrieval and forwarding of content by other servers. *Id*. at 2:20-22. The content to be transferred does not need to be on or accessible to the same server as the distribution management system. A "transport request" sent by the main server to a first set of terminals can include a further address of another server ("distribution server") from which the data is to be obtained. *Id*. at 7:40-45.

A target terminal is a terminal that is the intended recipient of the content/data file from

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[6] Doc. No. 74-1, pages 2-13 (the '167 Patent) at 7:64-67 and 8:1-38.

media storage. Each terminal can be a target terminal in a network. A first set of target terminals are adapted to act as relay servers by forwarding content to one or more of a second set of target terminals. Those terminals may also act as relay servers forwarding content to terminals further downstream. *Id*. at 2:23-31. A tracking database monitors performance of all terminals that act as relay servers using communication speed and other parameters such as reliability. The tracking database terminal information is provided to the main server in the form of lists of terminal addresses ranked by their relative performance. *Id*. at 2:35-43.

When a content file is to be distributed to target terminals, the main server initiates a data transport operation by sending a "transport request" to the first set of terminals, which are selected as the best terminals based on the list from the tracking database. The transport request includes details of the file to be transported such as file size and encryption, addresses of relay servers and terminals that are to be involved in the distribution. The transport request from the main server sent to the first set of terminals instructs these terminals to retrieve the content from the main server or another server with its address included in the transport request. The list of remaining target terminals is divided between the first terminals so that each of the first terminals acts as a relay server for distributing content to other target terminals. *Id*. at 2:44-64.

In response to the transport request, each of the first terminals begins downloading the content file. When one of the first terminals has received a predetermined portion of the file, it sends a modified version of the original transport request to its subset of target terminals. The modified transport request identifies the relevant first terminal as the server address from which its subset of the target terminals should retrieve the content data. The process can be repeated with a second set and further sets of target terminals, for terminals to act as relay servers for further target terminals. When each terminal has downloaded the whole content file, it sends a

notification message directly to the main server. *Id*. at 2:65-3:15.

Advantageously, the operational model of the invention can be implemented on an existing, conventional network infrastructure, such as the Internet, and does not require a new physical network to operate on. *Id*. at 3:42-45.

In a conventional network, a server has a server-oriented connection for clients, comprising a server socket which is used to connect to the client's server socket. This is one reason for the inefficiency of the prior networks. In the invention, the main application used in the main server and each terminal/relay server contains a standard server socket for receiving data from its clients. In addition, the main application also has client sockets for downstream communications to the downstream terminals. The content is sent to the target terminals via these client sockets and acknowledgements are received from the terminals via the server socket. When file transfer is complete, the client sockets can be destroyed, so as to not consume network resources. *Id*. at 4:39-53.

In summary, the main server selects and sends a transport request to each of a first set of terminals based on the terminals with the best performance. *Id*. at 5:3-5. It is not necessary for the terminals to know the entire network address space of the network, since the target terminal addresses are included in the transport requests. As part of the transport request, the main server sends the addresses of other target terminals to the first set of target terminals/relay servers. Each terminal selects its own downstream terminals/relay servers and sends the rest of the target network addresses to these terminals/relay servers as part of the modified transport request. Thus, each one of the first set of terminals selects a further two or three "best" terminals/relay servers from the addresses forwarded to it by the main server and passes the modified transport request on to these terminals including the details of the other remaining target terminals. Because of this

dynamic routing, the main server does not need to know explicitly which terminals deliver content data and which terminals receive content data. *Id*. at 5: 30-45.

The USPTO also confirmed that the features of '167 Patent claim 1 were novel because:

> The prior art singly or in combination does not teach "the main server is adapted to send transport requests direct to at least one first target terminal on the basis of said terminal performance information, and wherein the main server is further adapted to monitor response times of terminals in the network and in which terminals are selected to act as relay servers for a particular data transfers [sic] on the basis of their relative response times, and the first target terminal is adapted to act as relay server; and wherein each such transport request includes details of data to be retrieved, the address of the first server from which the data is to be requested by the first target terminal, the addresses of at least one second target terminal to which the data from the first server to be relayed by the first target terminal and an indication of a relative performance of a further target terminal based on the terminal performance information stored in the network information database" in conjunction with other elements of the claim.[7]

The claimed features are a technical improvement over the prior art because these features allow for the beneficial reduction in extreme spikes in network loads that caused delays in data transmission, thereby providing the end user who watches or listens to a content file a better experience without network delay and reduces congestion and bandwidth needs on the network, saving costs. For at least this reason, Defendant's Motion as to the '167 Patent should be denied.

III. LEGAL STANDARDS

A. Fed. R. Civ. P. 12(b)(6) and 12(c)

Rule 12(c) provides that "[a]fter the pleadings are closed -- but early enough not to delay trial -- a party may move for judgment on the pleadings."[8]

Rule 12(c) and Rule 12(b)(6) motions are functionally identical, and so the standards for a Rule 12(b)(6) motion apply to a Rule 12(c) motion. *Gregg v. Hawaii*, 870 F.3d 883, 887 (9th

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[7] Exhibit. B, Notice of Allowance for the '167 Patent, pages 20-21.
[8] Fed. R. Civ. P 12(c).

Cir. 2017). The Court takes as true the plausible and nonconclusory factual allegations in the complaint, and draws all reasonable inferences from those allegations in plaintiffs' favor. *See Herrera v. Zumiez, Inc.*, 953 F.3d 1063, 1068 (9th Cir. 2020). A Rule 12(c) motion may be granted when there is no issue of material fact in dispute and the moving party is entitled to judgment as a matter of law. *Fleming v. Pickard*, 581 F.3d 922, 925 (9th Cir. 2009). Rule 12(b)(6) and Rule 12(c) motions generally are confined to the four corners of the complaint, and any materials it incorporates. *See Lee v. City of Los Angeles*, 250 F.3d 668, 688 (9th Cir. 2001).

B. 35 U.S.C. § 101 Subject Matter Eligibility

Section 101 of the Patent Act sets forth four categories of patentable subject matter: "any new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. The law recognizes three exceptions to patent eligibility: "laws of nature, physical phenomena, and abstract ideas." *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980) (emphasis added). Determining whether a patent claim is directed to an abstract idea involves two steps. First, the court determines "whether the claims at issue are directed to a patent-ineligible concept." *Alice*, 573 U.S. at 218 (2014). Second, if the claim contains an abstract idea, the court evaluates whether there is "an 'inventive concept'—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself." *Id*. at 217.

At *Alice* step one, the courts determine whether the claims are directed to an abstract idea. *Alice*, 573 U.S. at 217, 134 S.Ct. 2347. Courts conduct the abstract idea inquiry by analyzing the "focus" of the claim, i.e., its "character as a whole," to determine whether the claim is directed to an abstract idea. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). In cases involving software innovations, this inquiry often turns on whether the claims focus on

specific asserted improvements in computer capabilities or instead on a process or system that qualifies an abstract idea for which computers are invoked merely as a tool. *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1364 (Fed. Cir. 2020) (citing *Finjan, Inc. v. Blue Coat Systems, Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018)). The courts have routinely held software claims patent eligible under *Alice* step one when they are directed to improvements to the functionality of a computer or network platform itself.[9]

[9] In *DDR Holdings, LLC v. Hotels.com, L.P.*, for example, the court held patent eligible claims directed to a system for generating a hybrid web page that maintained the "look and feel" of a host website. 773 F.3d 1245, 1257–59 (Fed. Cir. 2014). *DDR* emphasized that in "overcom[ing] a problem specifically arising in the realm of computer networks," the claimed invention changed the normal operation of the computer network itself and was "necessarily rooted in computer technology." *Id.* at 1257–58. Similarly, in *Enfish, LLC v. Microsoft Corp.*, the claims directed to a self-referential database that improved the way computers operated and handled data, allowing the more efficient launching and adaptation of databases were held to be patent eligible. 822 F.3d 1327, 1336–39 (Fed. Cir. 2016). In *Visual Memory LLC v. NVIDIA Corp.*, claims "focus[ed] on a 'specific asserted improvement in computer capabilities,' " namely the accommodation of different types of processors without compromising performance were held patent eligible. 867 F.3d 1253, 1259–60 (Fed. Cir. 2017). In holding the claims patent eligible, the court noted that the claims were not directed to categorical data storage but rather were limited to certain types of data to be stored. *Id.* In *Ancora Technologies, Inc. v. HTC America, Inc.*, claims directed to a non-abstract improvement to computer security were held patent eligible. 908 F.3d 1343, 1347–49 (Fed. Cir. 2018). The claims were determined to addressed the "vulnerability of license-authorization software to hacking" and were thus "directed to a solution to a computer-functionality problem." *Id.* at 1349; *see also Finjan*, 879 F.3d at 1304–06 (holding that claims to a "behavior-based virus scan" provided greater computer security and were thus directed to a patent-eligible improvement in computer functionality). In *Data Engine Technologies LLC v. Google LLC*, claims reciting "a specific method for navigating through three-dimensional electronic spreadsheets" were held patent eligible because the claimed invention "improv[ed] computers' functionality as a tool able to instantly access all parts of complex three-dimensional electronic spreadsheets." 906 F.3d 999, 1007–08 (Fed. Cir. 2018). In *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, claims directed to an improved user interface that enabled users to more quickly access stored data and programs in small-screen electronics were held patent eligible. 880 F.3d 1356, 1359–63 (Fed. Cir. 2018). The claimed invention in *Core Wireless* "improve[d] the efficiency of using the electronic device by bringing together a limited list of common functions and commonly accessed stored data, which can be accessed directly from the main menu." *Id.* at 1363. Therefore it was held that "the claims [we]re directed to an improvement in the functioning of computers, particularly those with small screens." *Id.*

IV. ARGUMENT

The claims of the '102 Patent and the '167 Patent are patent eligible because the claims are directed to an improvement in computer functionality that has "the specificity to transform a claim from one claiming only a result to one claiming a way of achieving it." *See Ancora,* 908 F.3d at 1349 (*quoting SAP America, Inc. v. InvestPic, LLC,* 898 F.3d 1161, 1167 (Fed. Cir. 2018)).

A. The '102 Patent is Eligible Under Section 101

1. Alice Step One

Claim 10 of the '102 Patent is not directed to an abstract idea. Improving security for media content, as is here against a computer's unauthorized use of a content file, can be a non-abstract computer-functionality improvement if done by a specific technique that departs from earlier approaches to solve a specific computer problem. *See Ancora Technologies, Inc. v. HTC America, Inc*., 908 F.3d 1343, 1348 (Fed. Cir., 2018); *Finjan, Inc. v. Blue Coat System, Inc.*, 879 F.3d 1299, 1304-05. (Fed. Cir. 2018). Claim 10 of the '102 Patent specifically identifies how that functionality improvement is effectuated in an assertedly unexpected way: "a method to obtain rights to use restricted content files from a structured content database and a content server is obtained using particular procedure by obtaining a first DRM key from the database, deriving a fingerprint of a specific content file that is based on the first DRM key that provides access to the fingerprint, the server validating the fingerprint, the database deriving second and third DRM keys from the content file header and applying the second and third keys to retrieve the payload of the content file, and the method makes the content usable on a user's computer or smart phone without the content being in an unprotected state." [10]

[10] Doc. No. 74-1, pages 15-31 (the '102 Patent) at 14:1-28.

This is a technological innovation that relies upon certain aspects of the intentions of any DRM method – keeping a content file secured so that a user cannot legally copy or share the file with others – that was missing in prior methods and systems. The method allows a user to view or listen to the content file without the content file being in an unprotected state, something that was not previously used in way now claimed with these types of DRM keys. The result is a beneficial reduction of theft of digital media files and thereby a loss of revenue for the copyright owners and file owners by leaving content files in an unprotected state.

Claims directed to specific verification methods that depart from earlier approaches and improve computer technology have been held eligible under §101. *CosmoKey Solutions GmbH & Co. KG v. Duo Security LLC*, 15 F.4th 1091, 1096 (Fed. Cir. 2021). In summary, claim 10 is directed to a computer-functionality problem: an improvement in computer functionality that has "the specificity to transform a claim from one claiming only a result to one claiming a way of achieving it." *See Ancora*, 908 F.3d at 1349 (*quoting SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). The claim yields a tangible technological benefit in making a content network less susceptible to content media theft by altering how the verification is performed. *See CosmoKey*, 15 F4th at 1097. It therefore passes muster under *Alice* step one, as it is not directed to patent-ineligible subject matter.

Defendant appears to analogize the '102 Patent claims with the claims in *Digital Media Techs., Inc. v. Amazon.com, Inc.*, 2017 WL 11700001, at *1 (N.D. Fla. July 3, 2017) and alleges that the '102 Patent is an abstract idea the same as going to see an R-rated movie, where a customer must show an identification to prove his or her age[11] However, Defendant fails to

[11] See Doc. No. 79, page 12, line 23 to page 13, line 16.

consider all claim elements. Plaintiff Valjakka disagrees with this overly simplified characterization, and the Federal Circuit has cautioned against a court (or party) of making a "broad characterization" of a claimed technological advance. *See CosmoKey*, 15 F. 4th at 1097. Rather, a description of the focus of the claims and specification is more appropriate. *Id*. Requesting access to a movie not analogous to the '102 Patent claims that allow a user to view or listen to the content file without the content file being in an unprotected state, something that was not previously used in the way claimed with the types of DRM keys.[12]

Defendant cites *Prism* and alleges that the '102 Patent is an abstract idea the same as retrieving valuables from a safety deposit box in a bank.[13] The Defendant's reliance on *Prism Techs. LLC v. T-Mobile USA, Inc*., 696 F. App'x 1014 (Fed. Cir. 2017) is misplaced. *Prism* can be distinguished from the '102 Patent and this case. The *Prism* patent at issue related to systems and methods that control access to protected computer resources by authenticating identity data, i.e., unique identifying information of computer components. See *Prism*, 696 F. App'x at 1016. The '102 Patent does not use identifying information of computer components in its method. Rather, the '102 Patent is directed to a technological innovation that relies upon certain aspects of the intentions of any DRM method – keeping a content file secured so that a user cannot legally copy or share the file with others – that was missing in prior methods and systems. The method allows a user to view or listen to the content file without the content file being in an unprotected

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[12] Similarly, the Defendant appears to analogize the '102 Patent claims with *PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1316 (Fed. Cir. 2021), *cert. denied*, 212 L. Ed. 2d 540, 142 S. Ct. 1445 (2022). However, here again, Defendant fails to consider all claim elements, namely that the '102 Patent claims allow a user to view or listen to the content file without the content file being in an unprotected state, something that was not previously used in the way claimed with the types of DRM keys.

[13] Doc. No. 79, page 11, line 26 to page 12, line 5.

state, something that was not previously used in way now claimed with these types of DRM keys.

The Federal Circuit cautioned a court or party not to rely too much on their precedent when performing an *Alice* analysis, since each patent is unique and must be decided on a case-by-case basis. *See CosmoKey*, 15 F. 4th at 1099 (While prior cases can be helpful in analyzing eligibility, whether particular claim limitations are abstract or, as an ordered combination, involve an inventive concept that transforms the claim into patent eligible subject matter, must be decided on a case-by-case basis in light of the particular claim limitations, patent specification, and invention at issue.)

For at least these reasons, claim 10 of the '102 Patent satisfies *Alice* step one.

2. Alice Step Two

Even if claim 10 is held to not satisfy *Alice* step one, the claim satisfies *Alice* step 2. *See Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1303 (Fed. Cir. 2016) (explaining that "even if [the claim] were directed to an abstract idea under step one, the claim is eligible under step two"). In *Alice* step two, the decision says a district court should "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim into a patent-eligible application." *Alice*, 573 U.S. at 217, 134 S.Ct. 2347 (*quoting Mayo*, 566 U.S. at 77-78, 132 S.Ct. 1289). In computer-implemented inventions, the computer must perform more than "well-understood, routine, conventional activities previously known to the industry." Id. at 223, 134 S.Ct. 2347 (*quoting Mayo*, 566 U.S. at 73, 132 S.Ct. 1289 (internal quotation marks and brackets omitted)). In addition, "[a]n inventive concept that transforms the abstract idea into a patent-eligible invention must be significantly more than the abstract idea itself, and cannot simply be an instruction to implement or apply the abstract idea on a computer." *CosmoKey*, 15 F. 4th at 1097 (*quoting BASCOM Glob.*

Internet Servs., Inc. v. AT&T Mobility LLC, 827 F.3d 1341, 1349 (Fed. Cir. 2016) (*citing Alice*, 573 U.S. at 222–23, 134 S.Ct. 2347)).

The Defendant argues in its Motion that the '102 Patent failed at step two because it "simply takes the abstract idea of providing access to restricted content and then tells a generic computer network to "apply it" using generic software and hardware."[14] The Defendant also states "the steps recited in claim 10 are not inventive. First, requesting access to content is purely conventional. Second, authenticating user and content identifiers is not inventive. Third making use of common cryptographic tools such as digital rights management keys and a fingerprint does not add significantly more than the abstract idea itself." [15]

Defendant's analysis is incomplete and its conclusions are wrong. The '102 Patent claims recite and the specification states a specific improvement to authentication that increases content management security, prevents unauthorized access by a third party or misuse of the content files by the user, is easily implemented using a specific process of digital rights management keys, and can advantageously be carried out with mobile devices such as smart phones and tablets of low complexity.[16]

Contrary to the Defendant's contentions, the '102 Patent discloses a novel technical solution to a security problem in content networks with maintaining control of the secure media files after the access is granted to the user to retrieve the payload and use the file. To solve this problem, the claimed method is directed to securing a first, second, and third digital rights keys to provide the novel method of allowing a user to use the content without having the access

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[14] See Doc. No. 79, page 14, lines 25-27.
[15] *Id*. at page 15, lines 18-25 (internal citations omitted).
[16] Doc. No. 74-1, pages 15-31 (the '102 Patent) at 5:24; 12:35-36.

database, or owner of the file, leaving the content in an unprotected state.[17] Defendant's Motion failed to mention or argue these final limitations of claim 10. Further, an allegation that this limitation is routine and generic would be misplaced. This limitation was developed by the inventor of the '102 Patent, not the prior art. In the '102 Patent's file history, the USPTO agreed that this aspect had advantages over the prior art, was not found in the prior art, and is patentably distinct from the prior art.[18] The Defendant erred in its interpretation of claim 10.

While Defendant cites prior cases that can be helpful in analyzing eligibility, the Federal Circuit has cautioned that "whether particular claim limitations are abstract or, as an ordered combination, involve an inventive concept that transforms the claim into patent eligible subject matter, must be decided on a case-by-case basis in light of the particular claim limitations, patent specification, and invention at issue. *See CosmoKey,* 15 F.4th at 1099. Here, the claim recites an inventive concept by requiring a specific procedure of ordered steps that go beyond the abstract idea identified by the Defendant and improves upon the prior art by providing a method that yields higher security for management of digital rights and media files. Thus, at least claim 10 of the '102 Patent is patent eligible under 35 U.S.C.§101.

B. The '167 Patent is Eligible Under Section 101

1. Alice Step One

The claims of the '167 Patent including the independent claims are not directed to an abstract idea. Improving performance of a content network as is here in the case of using relay terminals to improve the efficiency of a network, can be a non-abstract computer-functionality improvement if done by a specific technique that departs from earlier approaches to solve a

[17] *Id*. at 12:4-6.
[18] See Exhibit A Notice of Allowance for the '102 Patent.

specific network problem.[19]

The '167 Patent claims specifically identify how that functionality improvement is effectuated in an assertedly unexpected way: the main server adapted to send transport requests direct to at least one first target terminal on the basis of the terminal performance information, terminals are selected to act as relay servers for a particular data transfers on the basis of their relative response times, the first target terminal adapted to act as a relay server, the transport request includes details of data to be retrieved, the address of the first server from which the data is to be requested by the first target terminal, the addresses of at least one second target terminal to which the data from the first server to be relayed by the first target terminal, a relative performance of a further target terminal based on the terminal performance information, the relay terminals are adapted to modify transport requests received from the main server and to transmit the modified transport request to selected target terminals identified in the transport request, where the modified transport request includes addresses of further target terminals for which the

[19] See *DDR Holdings, LLC v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014). See also *Amdocs (Israel) Ltd. v. Openet Telecom, Inc*., 841 F.3d 1288 (Fed. Cir. 2016) the majority found that the claims include an inventive concept in the ordered combination of claim steps, finding that the "claim recites a technological solution to a technological problem specific to computer networks — an unconventional solution that was an improvement over the prior art." See also *SRI Int'l, Inc. v. Cisco Systems, Inc.*, the Federal Circuit in this case found an invention that collected and analyzed data over a network to be patent-eligible. The claimed invention involved "network monitors" deployed in a computer network that reported back network traffic data. By analyzing the data, the invention could find suspicious activity and generate reports. The Court distinguished *Electric Power Group* by noting that computers in that case were being used to "solve a power grid problem," while the computers in the present case improved the functionality of computer networks themselves. See also, *Packet Intelligence LLC v. NetScout Systems, Inc.*, 965 F.3d 1299 (Fed. Cir. 2020), the court found that software which identified "disjointed connection flows" in a computer network was directed toward an improvement to computer technology and not mere use of a computer as a tool to implement an abstract concept. Like *Finjan*, *Enfish*, and *SRI*, the claims were not directed to an abstract idea and therefore were eligible under Section 101.

recipient of the modified transport request is to act as a relay server.[20]

This is a technical innovation that relies upon certain aspects of a content network that wants to avoid extreme spikes in the network load, especially when data is required to be transferred to a large number of clients simultaneously, causing delays in data transmission, which was missing in prior methods and systems where a main server serves all terminals via a single server socket.[21] The system and methods allow content data to be transferred more efficiently in a network, using transfer requests from the main server to target terminals of the best performances that are also relay servers, which then themselves create modified transfer requests to send to additional target terminals and terminals that are relay servers that have the best performance, and so on downstream of the network. This was not previously done by prior network systems. The result is a beneficial reduction in extreme spikes in network loads that caused delays in data transmission, thereby providing the end user who watches or listens to a content file a better experience without network delay and reduces congestion and bandwidth needs on the network, saving costs.

In summary, the '167 Patent claims yield a tangible technological benefit in making a content network less susceptible to extreme spikes in network loads, causing delays in transmission by altering how the content data is distributed on the network. It therefore passes muster under *Alice* step one, as it is not directed to patent-ineligible subject matter.

The Defendant has alleged that the '167 Patent is an abstract idea the same as a professor selecting a subset of students to deliver copies of the assignment to different sections of the class

[20] Doc. No. 74-1, pages 2-13 (the '167 Patent) at 8:8-33.
[21] *Id*. at 1:12-17.

and providing a verbal message to each student with details of the class they are responsible for.[22] Plaintiff disagrees with this overly simplified and extremely broad characterization.

The Defendant's reliance on *Broadcom Corp. v. Netflix Inc.*, 598 F. Supp. 3d 800 (N.D. Cal. 2022) is misplaced. *Broadcom* can be distinguished from the '167 Patent and this case. The *Broadcom* patent at issue related to allocating tasks for a program ("job") across a system of servers based on the capabilities and availability of those computers and what is needed for the job. *See Broadcom*, 598 F. Supp. at 807. The '167 Patent does not use a central processor that distributes executable functions of a software program to be performed by available servers in a network. Rather, according to the '167 Patent claim 1:

> the main server is adapted to send transport requests direct to at least one first target terminal on the basis of said terminal performance information, and … to monitor response times of terminals in the network and in which terminals are selected to act as relay servers for a particular data transfers [sic] on the basis of their relative response times, and the first target terminal is adapted to act as relay server; and wherein each such transport request includes details of data to be retrieved, the address of the first server from which the data is to be requested by the first target terminal, the addresses of at least one second target terminal to which the data from the first server to be relayed by the first target terminal and an indication of a relative performance of a further target terminal based on the terminal performance information stored in the network information database.[23]

The claimed features are a technical improvement over the prior art because these features allow for the beneficial reduction in extreme spikes in network loads that caused delays in data transmission, thereby providing the end user who watches or listens to a content file a better experience without network delay and reduces congestion and bandwidth needs on the network, saving costs.

For at least these reasons, claim 1 of the '167 Patent satisfies *Alice* step one.

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[22] Doc. No. 79 at page 17, lines 23-25.
[23] Doc. No. 74-1, pages 2-13 (the '167 Patent) at 7:64-67 and 8:1-38.

2. Alice Step Two

Even if the claims do not satisfy *Alice* step one, the claims satisfy *Alice* step two.

The Defendant alleges in its Motion that the claims in the '167 Patent contains no inventive step.[24] Defendant's Motion alleges that "the 'main server' and 'relay servers' determine where to send a 'transport request' or 'modified transport request' on the basis of 'terminal performance information.'" *Id.* The Defendant further alleges that "The requests consist of information one would expect in a message sent between networked computers – i.e., server addresses, performance information of other network terminals, file type, file size, etc."[25]

Defendant's analysis and conclusions are wrong. The '167 Patent claims and specification are directed to a specific improvement in the performance of a content management network that can advantageously be implemented on existing networks such as the Internet thereby saving tremendous costs of building an independent network.[26]

Contrary to the Defendant's conclusion, the '167 Patent claims disclose a novel technical solution to a network load problem in content networks of extreme spikes in the network load especially when the data is required to be transferred to large numbers of clients simultaneously, causing delays in transmission. To solve this problem, the claimed novel data communication network uses a main server that is adapted to monitor response times of terminals in the network and in which terminals are selected to act as relay servers for a particular data transfers on the basis of their relative response times, where the first target terminal is adapted to act as relay server. Each such transport request includes details of data to be retrieved, the address of the first

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[24] See Doc. No. 79 at page 20, line 24 to page 22, line 18.
[25] *Id*. at page 22, lines 5- 7.
[26] Doc. No. 74-1, pages 2-13 (the '167 Patent) at 1:12-17; 3:42-44.

server from which the data is to be requested by the first target terminal, the addresses of at least one second target terminal to which the data from the first server to be relayed by the first target terminal and an indication of a relative performance of a further target terminal based on the terminal performance information stored in the network information database. Terminals adapted to act as relay servers are adapted to modify transport requests received from the main server or from other relay servers and to transmit the modified transport request to selected target terminals from a set of target terminals identified in the transport request, where the modified transport request further includes addresses of further target terminals for which the recipient of the modified transport request is to act as relay server.[27] These are the central limitations of the independent claims.

For the Defendant to allege these limitations are generic and not patentable is misplaced. The limitations were developed by the inventor of the '167 Patent, not the prior art. The Defendant simply argues that transport requests and modified transport requests are what "one would expect in a message sent between networked computers."[28] The Defendant has produced no evidence that "one" or even one skilled in the art would expect such technological advances. Defendant's allegations are simply conjecture. To the contrary, the USPTO found that these features were patentable and not found in the prior art.[29] The Defendant has erred it is interpretation of the claims, and the claims should be deemed as meeting the requirements for *Alice* step two.

Here, the claim recites an inventive concept by requiring specific computer functionalities that go beyond the abstract idea identified by the Defendant and improves upon the prior art by

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[27] *Id*. at 8:8-33
[28] Doc. No. 79 at page 22, lines 5-7.
[29] See Exhibit B – Notice of Allowability for the '167 Patent.

providing a data communications network that yields higher performance for a content management network. For the reasons set forth above, plaintiff respectfully request the Court to deny the Defendant's Motion in respect to the '167 Patent independent claims.

3. Dependent Claims 3-6 and 11-14

The dependent claims 3-6 and 11-14 are not directed to an abstract idea at least for the same reasons as the claim from which they respectively depend and for the additional features they each recite. The claimed system here specifically identifies how that functionality improvement is effectuated in an assertedly unexpected way:

- the subject matter of claims 3 and 11 for terminals acting as relay servers adapted to select further downstream target terminals to act as further relay servers on the basis of their relative performances of the further target terminals indicated in the transport request
- the subject matter of claims 4 and 12, the first server is a terminal adapted to act as a relay server
- the subject matter of claims 5 and 13 where each of the terminals is adapted to communicate directly with the main server in an upstream direction
- the subject matter of claims 6 and 14 where data is routed to the terminals as routed network protocol traffic such as TCP/IP traffic.[30]

The subject matter of claims 3-6 and 11-14 allow content data to be transferred more efficiently in a network, using transfer requests from the main server to target terminals of the best performances that are also relay servers, which then themselves create modified transfer requests to send to additional target terminals and terminals that are relay servers that have the best performance, and so on downstream of the network. This was not previously done by prior network systems. The result is a beneficial reduction in extreme spikes in network loads that caused delays in data transmission, thereby providing the end user who watches or listens to a content file a better experience without network delay and reduces congestion and bandwidth needs on the network, saving costs.

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[30] See Doc. No. 74-1 (the '167 Patent) at 8:48-56; 9:46-58.

Even if the dependent claims do not satisfy *Alice* step one, the dependent claims satisfy *Alice* step two. Defendant's Motion alleges that the asserted dependent claims offer no inventive step that renders the dependent claims patent eligible and repeats the comparison to a professor and students.[31] However, the dependent claims recite specific improvements to the performance of a content management network and can advantageously be implemented on existing networks such as the Internet thereby saving tremendous costs of building an independent network.[32] For the reasons set forth above, plaintiff respectfully request the Court to deny Defendant's Motion in respect to the '167 Patent asserted dependent claims 3-6 and 11-14.

IV. CONCLUSION

For all the above reasons, Valjakka respectfully requests that the Court deny Defendant's Motion to Dismiss.

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Respectfully submitted,

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[31] See Doc. No. 79 at page 22.
[32] See Doc. No. 74-1 (the '167 Patent) at 8:48-56; 9:46-58.